

UNCONSOLIDATED AQUIFER SYSTEMS OF DAVIESS COUNTY, INDIANA

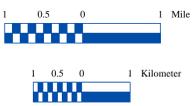
Daviess County Unconsolidated Aquifer Systems

Six unconsolidated aquifer systems have been mapped in Daviess County: the Dissected Till and Residuum; the Alluvial, Lacustrine, and Backwater Deposits; the Pre-Wisconsin Drift; the White River and Tributaries Outwash; the White River and Tributaries Outwash Subsystem; and the Coal Mine Spoil. The first five unconsolidated aquifer systems comprise sediments that were deposited primarily by glaciers and their meltwaters, or are thin, eroded residuum (a product of bedrock weathering). However, some sediments in the Alluvial, Lacustrine, and Backwater Deposits Aquifer System were deposited by flowing water not originating from glaciers. Boundaries of some of these aquifer systems are in places gradational, and individual aquifers may extend across aquifer system boundaries.

The most productive unconsolidated aquifer system in Daviess County is the White River and Tributaries Outwash Aquifer System with its extensive sand and gravel deposits that occur along the western and southern boundary of the county. Expected yields from this system range from about 300 to 1500 gallons per minute for large-diameter wells. This aquifer system is highly susceptible to contamination in areas that lack overlying clay layers. Areas within the system that are overlain by thick layers of clay or silt are moderately susceptible to surface contamination.

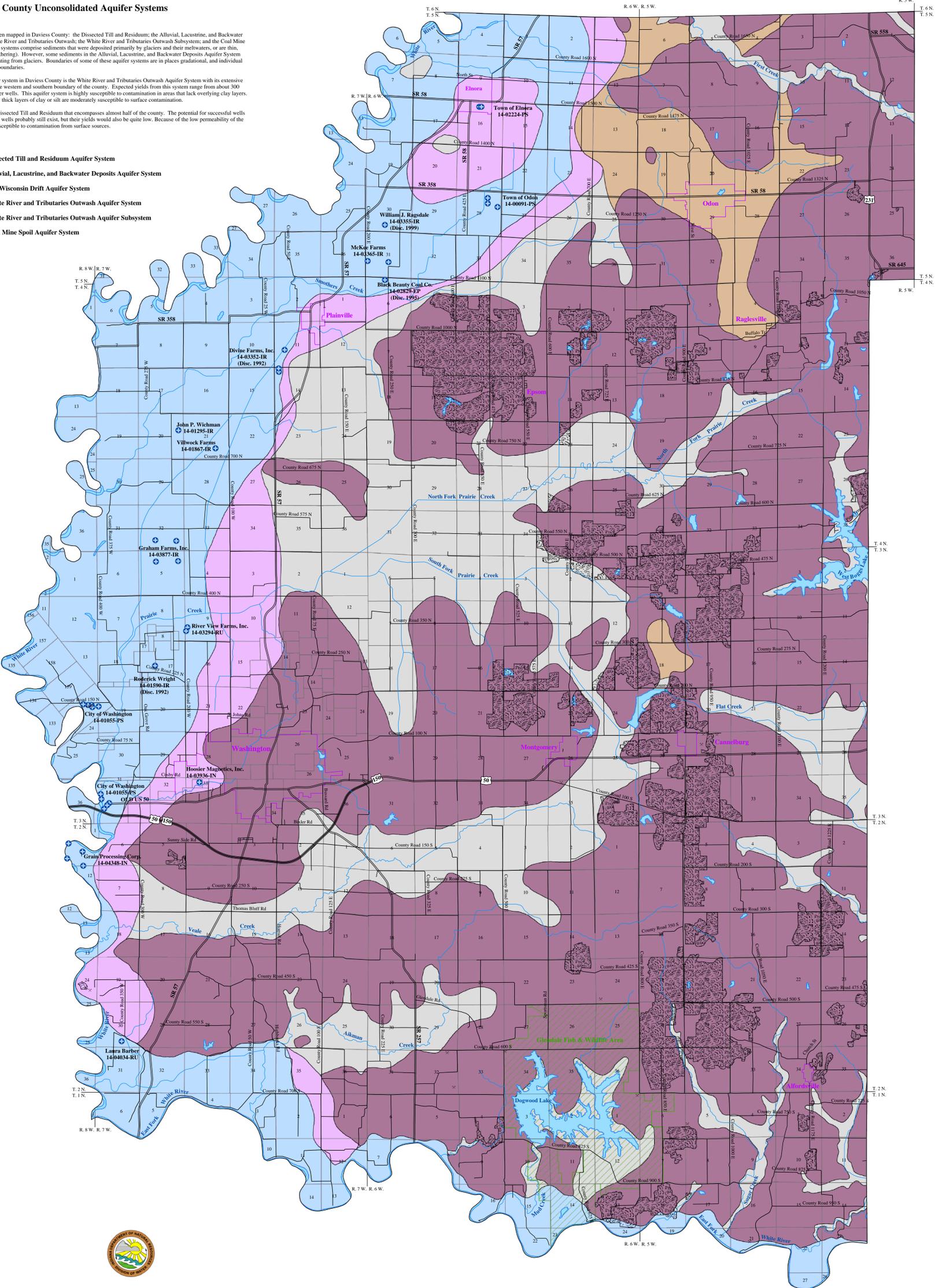
The least productive aquifer system is the Dissected Till and Residuum that encompasses almost half of the county. The potential for successful wells in this aquifer system is low. Some old dug wells probably still exist, but their yields would also be quite low. Because of the low permeability of the surface materials, this system is not very susceptible to contamination from surface sources.

- Dissected Till and Residuum Aquifer System
- Alluvial, Lacustrine, and Backwater Deposits Aquifer System
- Pre-Wisconsin Drift Aquifer System
- White River and Tributaries Outwash Aquifer System
- White River and Tributaries Outwash Aquifer Subsystem
- Coal Mine Spoil Aquifer System



EXPLANATION

- County Road
- State Road & US Highway
- Stream
- Lake & River
- Municipal Boundary
- Glendale Fish & Wildlife Area
- Small Surface Mine (Abandoned)
- Registered Significant Ground-water Withdrawal Well



Map Use and Disclaimer Statement

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This map was created from several existing shapefiles. Surface Coal Mines in Southwestern Indiana (polygon shapefile, 20001207), Township and Range Lines of Indiana (line shapefile, 20020621), Land Survey Lines of Indiana (polygon shapefile, 20020621), and County Boundaries of Indiana (polygon shapefile, 20050621) were all from the Indiana Geological Survey and based on a 1:24,000 scale. Draft road shapefiles, System1 and System2 (line shapefiles, 2003), were from the Indiana Department of Transportation and based on a 1:24,000 scale. City Areas in Southwestern Indiana (polygon shapefile, 1999) was from ESRI and based on a 1:100,000 scale. Streams27 (line shapefile, 20000420) was from the Center for Advanced Applications in GIS at Purdue University. Managed Areas 96 (polygon shapefile, various dates) was from IDNR. Unconsolidated Aquifer Systems coverage (Herring, 2003) was based on a 1:24,000 scale.

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